AMENDMENTS

In the Claims

Current Status of Claims

1   1.(canceled)

1   2.(currently amended)   The method of claim 21, wherein the related keyword generating step

2   comprises polling a database for terms related to the at least one keyword.

1   3.(canceled)

2   4.(canceled)

3   5.(canceled)

4   6.(canceled)

5   7.(canceled)

6   8.(canceled)

7   9.(canceled)

8   10.(canceled)

9   11.(canceled)

10   12.(canceled)

11   13.(canceled)

12   14.(canceled)

13   15.(canceled)

1   16.(currently amended)   The system of claim ~~15~~ 29, wherein the data mining library includes

2   data mining routines (DMRs) selected from the group consisting of a chi squared DMR, a

3   correlation DMR, a decision tree DMR, a market basket type DMR, a naive Bayes DMR based on

4   Bayesain statistics, an association DMR, and a cluster DMR.

1   17.(currently amended)   The system of claim ~~15~~ 29, wherein the database is selected from the

2   group consisting of multidimensional databases, relational database, hierarchical databases and

3   mixtures and combinations thereof.

1   18.(canceled)

19.(**previously amended**)   The system of claim ~~18~~ 30, wherein the data mining routine (DMR) is selected from the group consisting of a chi squared DMR, a correlation DMR, a decision tree DMR, a market basket type DMR, a naive Bayes DMR based on Bayesain statistics, an association DMR, and a cluster DMR.

20.(**previously amended**)   The system of claim ~~18~~ 30, wherein the middleware interface is selected from the group consisting of multidimensional database middleware interface, relational database middleware interface, hierarchical database middleware interface and mixtures and combinations thereof.

21.(**new**)   A method for analyzing a query and generating related results comprising:

extract keywords from the query;

generating at least one term related to at least one keyword;

supplying the keywords and terms to a data mining routine;

generating, within the data mining routine, a request or a plurality of requests for results related to the keywords and terms;

supplying the request or plurality of requests to a middleware interface to at least one multi-dimensional database;

converting the request or plurality of requests to a corresponding database request or a plurality of corresponding database requests;

generating, within the at least one database, a database response or a plurality of database responses corresponding to the database request or the plurality of database requests;

forwarding the database response or the plurality of database responses to the middleware;

converting, within the middleware, the database response or the plurality of database responses into a data mining response or a plurality of data mining responses;

supplying the data mining response or the plurality of data mining responses to the data mining routine;

generating, within the data mining routine, at least one result related to the query and at least one question related to the query derived from the related results, where the question is adapted to enhance information retrieval associated with the query; and

displaying the at least one related result and the at least one question.

1   22.(**new**)   The method of claim 21, further comprising:

2   selecting, prior to the data mining routine supply step, at least one generated term.

1   23.(**new**)   The method of claim 21, further comprising:

2   after request generating step, generate, within the data mining routine, an "as is" request

3   corresponding to the query excluding the terms.

1   24.(**new**)   The method of claim 21, further comprising the steps of:

2   selecting one of the displayed questions;

3   generating, within the data mining routine, a question request or a plurality of question

4   requests for results related to the selected question;

5   supplying the question request or plurality of question requests to a middleware interface to

6   the at least one multi-dimensional database;

7   converting the question request or plurality of question requests to a corresponding database

8   question request or a plurality of corresponding database question requests;

9   generating, within the at least one database, a database question response or a plurality of

10   database question responses corresponding to the database question request or the plurality of

11   database question requests;

12   forwarding the database question response or the plurality of database question responses

13   to the middleware;

14   converting, within the middleware, the database question response or the plurality of

15   database question responses into a data mining question response or a plurality of data mining

16   question responses;

17   supplying the data mining question response or the plurality of data mining question

18   responses to the data mining routine;

19   generating, within the data mining routine, at least one result related to the question and at

20   least one sub-question related to the question derived from the related results, where the sub-

21   question is adapted to enhance information retrieval associated with the query; and

22   displaying the at least one related result and the at least one sub-question.

1   25.(**new**)   The method of claim 24, further comprising the steps of:

2   selecting one of the sub-questions; and

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3   repeating all but the selecting step of claim 24.

1   26.(**new**)   The method of claim 21, wherein the query further includes constraints selected from

2   the group consisting of containment constraints, grouping constraints, connector constraints, data

3   constraints and mixtures and combinations thereof.

1   27.(**new**)   The system of claim 21, wherein the data mining library includes data mining

2   routines (DMRs) selected from the group consisting of a chi squared DMR, a correlation DMR, a

3   decision tree DMR, a market basket type DMR, a naive Bayes DMR based on Bayesain statistics,

4   an association DMR, and a cluster DMR.

1   28.(**new**)   The system of claim 21, wherein the database is selected from the group consisting

2   of multidimensional databases, relational database, hierarchical databases and mixtures and

3   combinations thereof.

1   29.(**new**)   A system comprising:

2   a remote digital processing unit including an operating system, communication routines, and

3   a user interface having a query construction routine and a results display routine;

4   an application server including an operating system, communication routines, and a query

5   information retrieval content enhancing sub-system having a controller, a library of database

6   interfaces, a library of data mining routines, a user profiler, a database (DB) middleware component

7   and a query/results database, where the sub-system determines query keywords from a query

8   constructed in the remote digital processing unit, generates related keywords, constructs at least one

9   request for data or information from a database from the query keywords and related keywords,

10   converts the requests into at least one database request, receives data or information from the

11   database corresponding to the database requests and produces at least one query response and at

12   least one question derived from the query, where the questions are designed to enhance information

13   retrieval from the query;

14   a database server including an operating system, communication routines, a database and

15   database services, where the database server receives the database requests from the middleware

16   component of the sub-system, obtains database data or information corresponding to the requests

17   and forwards the data or information to the sub-system; and

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18   a network interconnecting the remote digital processing unit, the application server and the

19   database server.

1   30.(**new**)   A query information retrieval content enhancing system comprising:

2   a controller,

3   a library of database interfaces,

4   a library of data mining routines,

5   a user profiler,

6   a middleware interface and

7   a query/results database,

8   where the system determines query keywords from a query, generates related keywords,

9   constructs at least one database request for database data or information corresponding to the query

10   keywords and related keywords, receives database data or information corresponding to the database

11   requests and produces at least one query response and at least one question derived from the query,

12   where the questions are designed to enhance information retrieval from the query.

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